

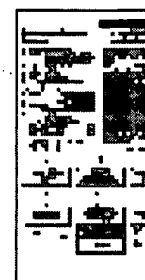


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**Title:** JP1316372A2: DIOXANE-BASED LIQUID CRYSTAL SUBSTANCE  
**Country:** JP Japan  
**Kind:** A  
**Inventor:** SUZUKI GIICHI;  
 HAGIWARA TAKASHI;  
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**Published / Filed:** Dec. 21, 1989 / March 8, 1989  
**Application Number:** JP1989000053791  
**IPC Code:** C07D 319/06; C09K 19/34; G02F 1/13;  
**Priority Number:** March 9, 1988 JP1988000053805  
**Abstract:**



NEW MATERIAL: A dioxane-based liquid crystal substance, expressed by formula I [R1 is 1-20C alkyl, alkoxy, alkyloxycarbonyl or alkylcarbonyloxy; (A) is formula II, III, IV, etc.; X is formula V, VI, etc.; R' is H or methyl; l is 1-6] (B) is formula II, III, etc.; Y is formula V, -O-, -S-, -CH2O-, etc.; R2 is formula VII, etc.; R3 is 1-20C alkyl, aralkyl, etc.; Z is CF3, C2F5, CHF2, etc.; m is 2-20].

EXAMPLE: 4'-(1-Trifluoromethylnonyloxycarbonyl)phenyl (R)-(+)-4-(5-n-benzyl- trans-1,3-dioxan-2-yl)benzoate.

USE: Useful as a liquid crystal component in liquid crystal display, optical shutters, etc., and for application to electrooptical elements, etc.





PREPARATION: For example, ethyl malonate is reacted with a sodium alcoholate, etc., to provide a compound expressed by formula VIII, which is used as a raw material and passed through several steps to afford the compound expressed by formula I.

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**Designated Country:** DE FR GB  
**Family:** [Show 8 known family members](#)

**Forward References:**

PDF	Patent	Pub.Dat	Inventor	Assign e	Titl
	US6239316	2001-05-29	Mine; Takakiyo	Mitsubishi Gas Chemical Company Inc	Optically active secondary alcohol and process for the production thereof
			Mine;	Mitsubishi Gas	Anti-ferroelectric liquid cr

	<a href="#">US6133469</a>	2000-10-17	Takakiyo	Chemical Company	compound
	<a href="#">US6103517</a>	2000-08-15	Mine; Takakiyo	Mitsubishi Gas Chemical Company	Process for the production of optically active alcohol and novel optically active alcohol
	<a href="#">US6002042</a>	1999-12-14	Mine; Takakiyo	Mitsubishi Gas Chemical Company, Inc.	Liquid crystal compound
	<a href="#">US5976409</a>	1999-11-02	Mineta; Hiroshi	Mitsubishi Gas Chemical Company, Inc.	Swallow-tail-shaped liquid crystal compound
	<a href="#">US5968413</a>	1999-10-19	Mine; Takakiyo	Mitsubishi Gas Chemical Company, Inc.	Anti-ferroelectric liquid crystal compounds
	<a href="#">US5942646</a>	1999-08-24	Mine; Takakiyo	Mitsubishi Gas Chemical Company, Inc.	Optically active alcohol and process for the production thereof
	<a href="#">US5723069</a>	1998-03-03	Mineta; Hiroshi	Mitsubishi Gas Chemical Company, Inc.	Anti-ferroelectric liquid crystal compound and anti-ferroelectric liquid crystal composition
	<a href="#">US5330678</a>	1994-07-19	Okabe; Nobuhiro	Showa Shell Sekiyu Kabushiki Kaisha	Liquid crystal compound

Other Abstract Info:

CHEMABS 112(08)067359Y DERABS C89-265604

